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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------------------------------------------------------------------------------|-------------|----------------------|-----------------------|------------------|
| 10/667,545 | 09/22/2003 | Timothy Chen | 135432 (GECZ 2 00680) | 9930 |
| 27885 | 7590 | 07/26/2005 | EXAMINER | |
| FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP 1100 SUPERIOR AVENUE, SEVENTH FLOOR CLEVELAND, OH 44114 | | | TRAN, THUY V | |
| | | | ART UNIT | PAPER NUMBER |

2821

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/667,545 | Applicant(s) CHEN ET AL. | |
| | Examiner Thuy V. Tran | Art Unit 2821 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment submitted on May 9th, 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-13,16-18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4,6-13 and 16 is/are allowed.
- 6) ☒ Claim(s) 17,18 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a response to the Applicant's amendment submitted on May 9th, 2005. In virtue of this amendment:

- Claims 5, 14-15, and 19 are canceled; and thus,
- Claims 1-4, 6-13, 16-18, and 20 remain active in the instant application.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 17-18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Stack (U.S. Patent No. 6,222,322).

With respect to claim 17, Stack discloses, in Fig. 4, a lamp inverter starting circuit comprising (1) a switching portion [110] that includes first and second transistors [Q1, Q2], (2) a resonant load portion [T5, C9] for receiving a lamp [FL1], (3) a power factor correction circuit [106] (see col. 5, line 31) that delivers a bus voltage that ranges from 120 V to 230 VAC (which is within the claimed range of from about 120 V to about 300 V), and (4) a voltage dependent start-up portion [108] that delays firing (via diac [D9]; see col. 6, lines 45-67; and col. 7, lines 1-7) of the inverter until the bus voltage ramps up to a predetermined threshold (which is of the diac [D9]; see col. 6, lines 56-65).

With respect to claim 18, Stack further discloses, in Fig. 4, an AC line voltage that ranges from 120 V to 230 V (which is within the claimed range of 120 V to 280 V).

With respect to claim 20, Stack discloses, in Fig. 4, that the voltage dependent start-up portion [108] allows firing of the inverter circuit before the bus voltage reaches a steady state (see col. 5, lines 24-34).

Allowable Subject Matter

3. Claims 1-4, 6-13, and 16 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter:
Prior art fails to disclose or fairly suggest:
 - A lamp inverter starting circuit comprising an input portion that receives the bus voltage signal, wherein the bus voltage signal ranges up to 390 V, and a voltage controlled start-up portion that delays triggering of the inverter starting circuit based on the input bus voltage signal, in combination with the remaining claimed limitations as called for in independent claim 1 (claims 2-4 and 6-10 are allowed since they are dependent on claim 1); and
 - A method of firing a lamp comprising overcoming a breakdown voltage of a diac by ramping the bus voltage up to between about 300 V to about 500 V, turning the diac conductive when the charged capacitor reaches the diac breakdown voltage, in combination with the remaining claimed limitations as called for in independent claim 11 (claims 12-13 and 16 are allowed since they are dependent on claim 11).

Remarks and conclusion

5. Applicant's arguments, see pages 5 and 6 of the Amendment, filed on May 9th, 2005, with respect to independent claims 1 and 11 have been fully considered and are persuasive. Therefore, the rejections of these claims have been withdrawn, and as a result, they are now

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allowed along with the claims that are dependent on them. Specifically, claims 1-4, 6-13, and 16 are allowed.

6. For claim 17 and its dependents, the cited prior art Stack explicitly teaches a range of 120-230 VAC which is within the claimed range of 120 V to about 300 V. Therefore, claims 17-18 and 20 remain rejected.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquiry

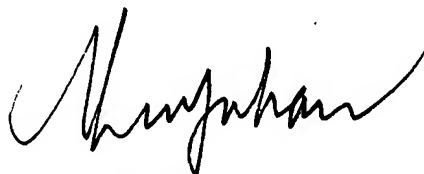
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

07/25/2005



THUY V. TRAN
PRIMARY EXAMINER

REPLACEMENT SHEET

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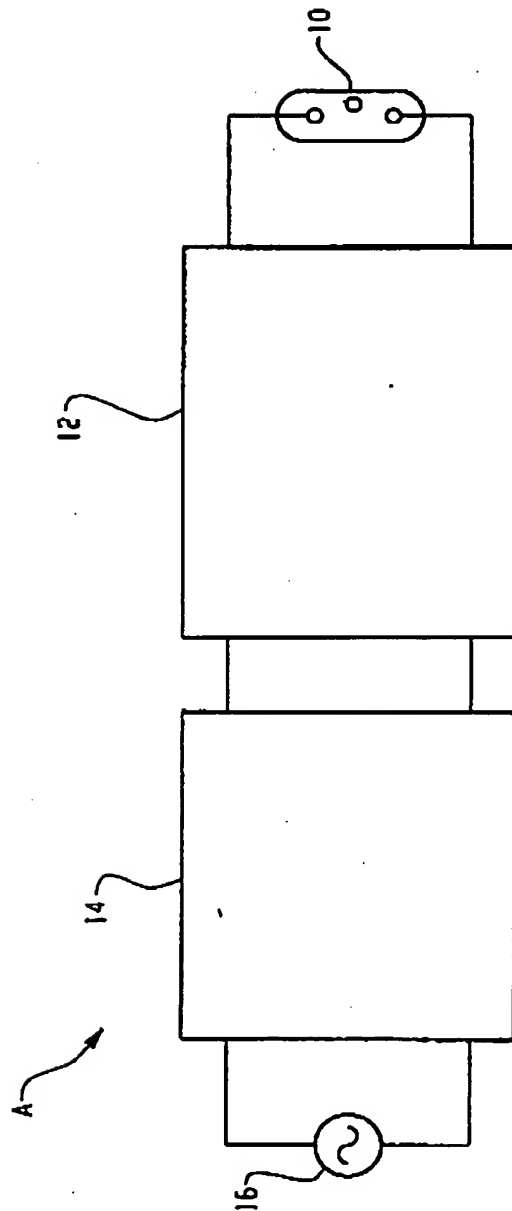


Fig. 1

REPLACEMENT SHEET

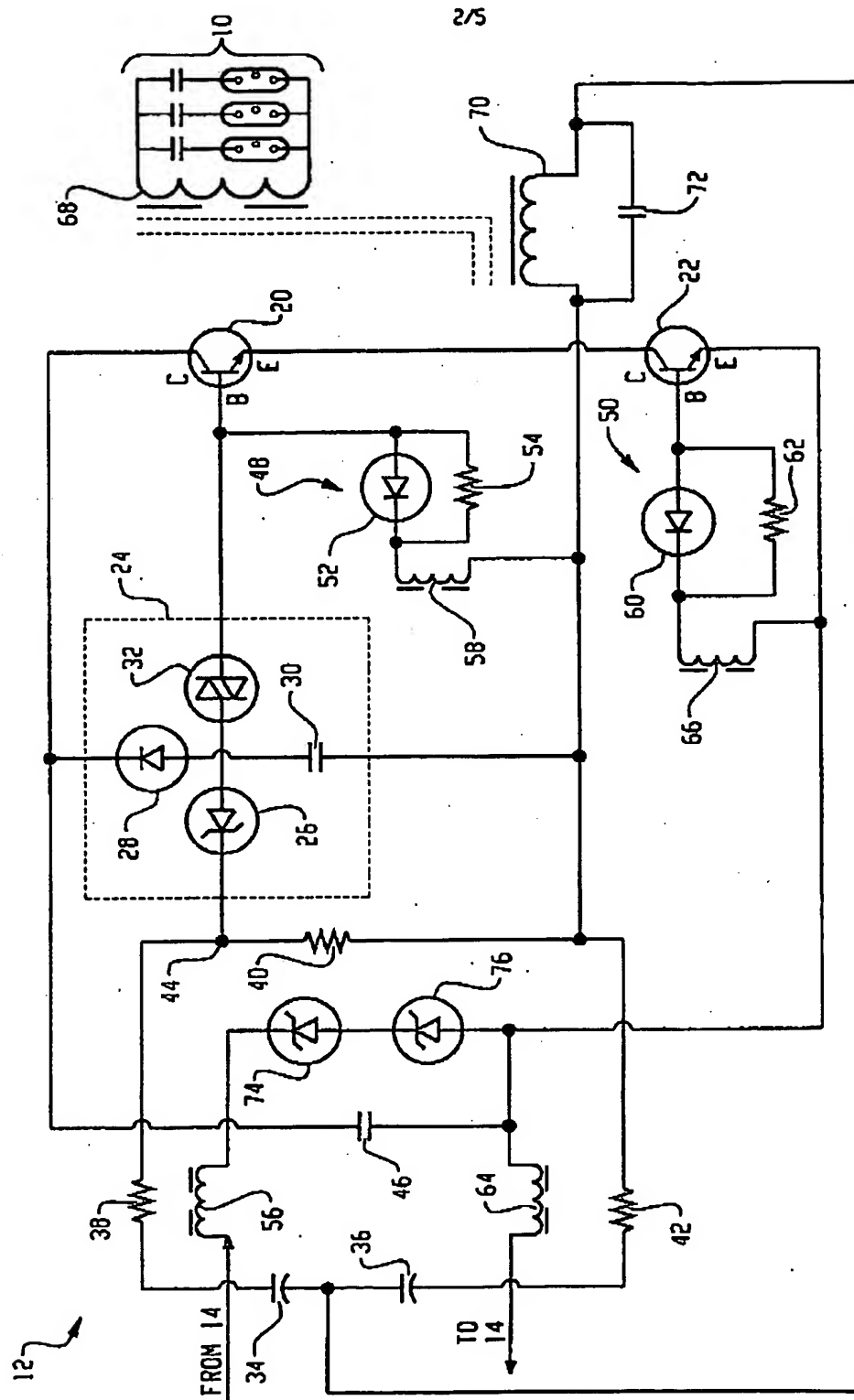
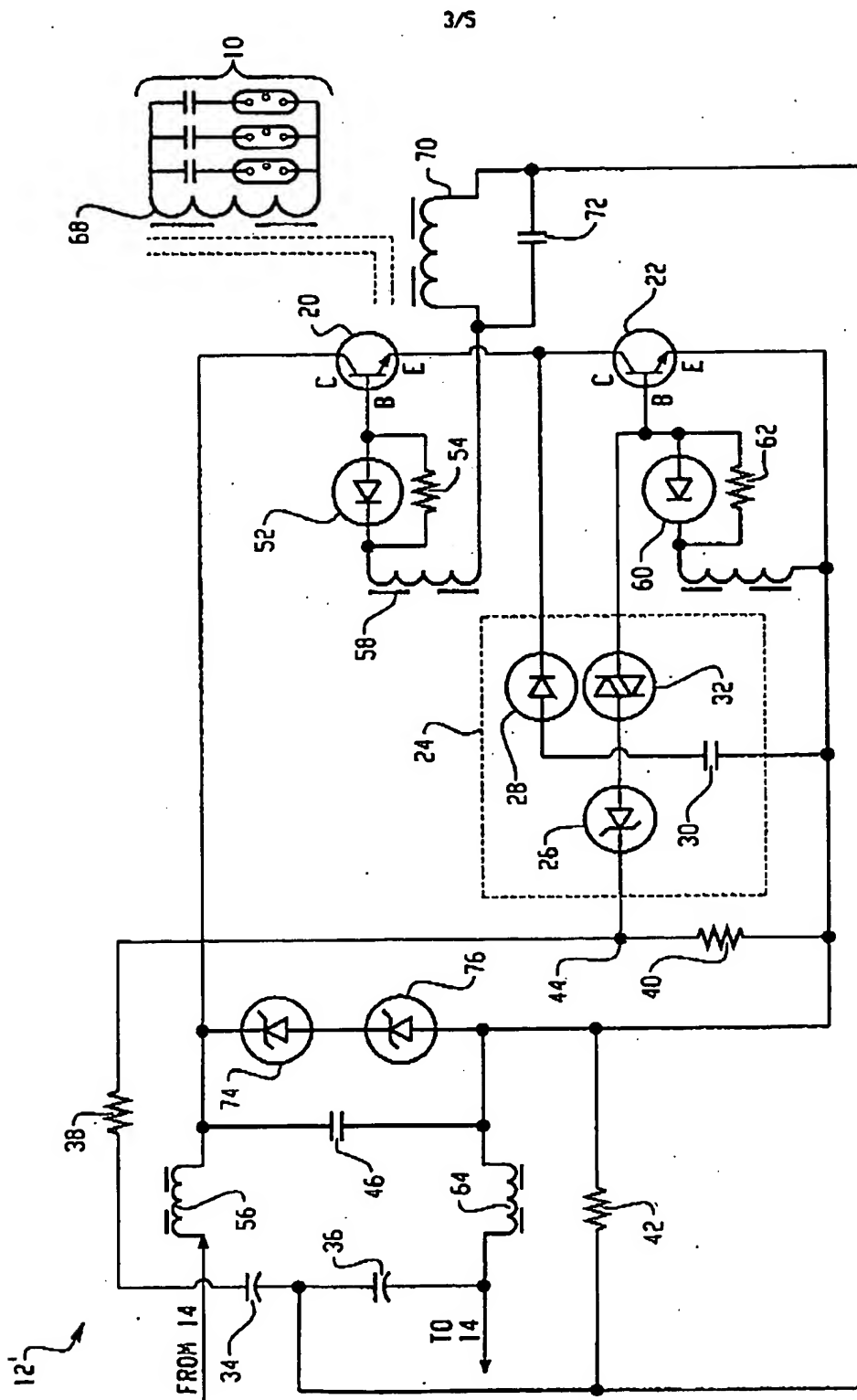


Fig. 2

REPLACEMENT SHEET



REPLACEMENT SHEET

4/5

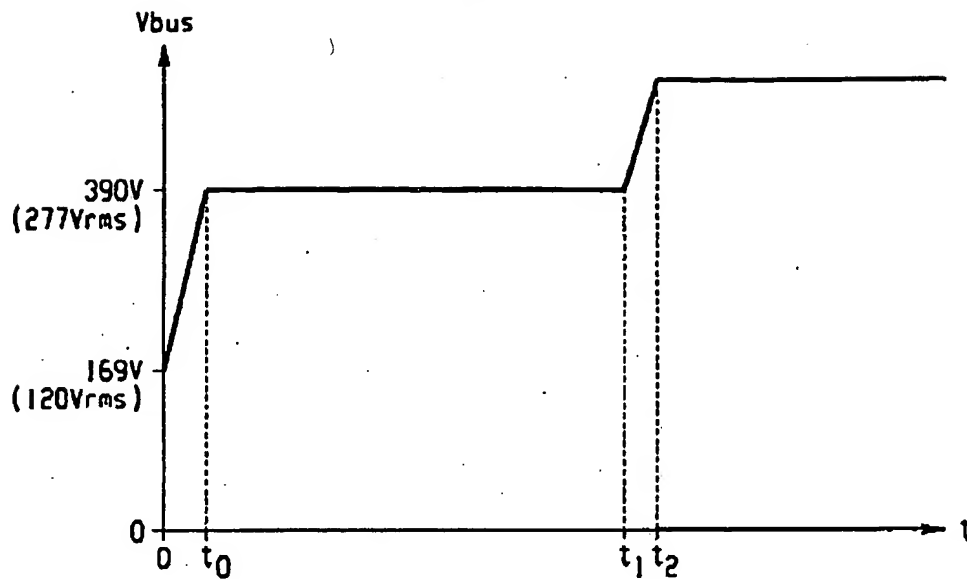


Fig. 4A

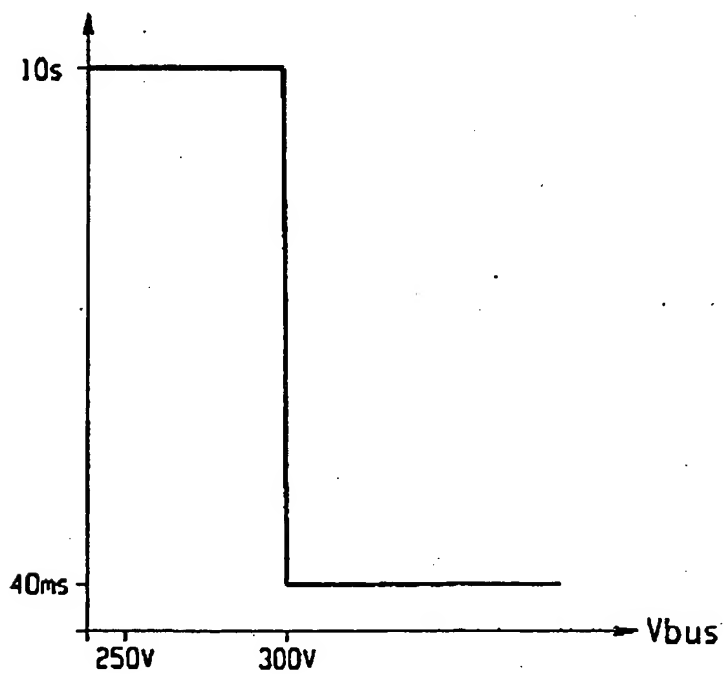


Fig. 4B

REPLACEMENT SHEET

5/5

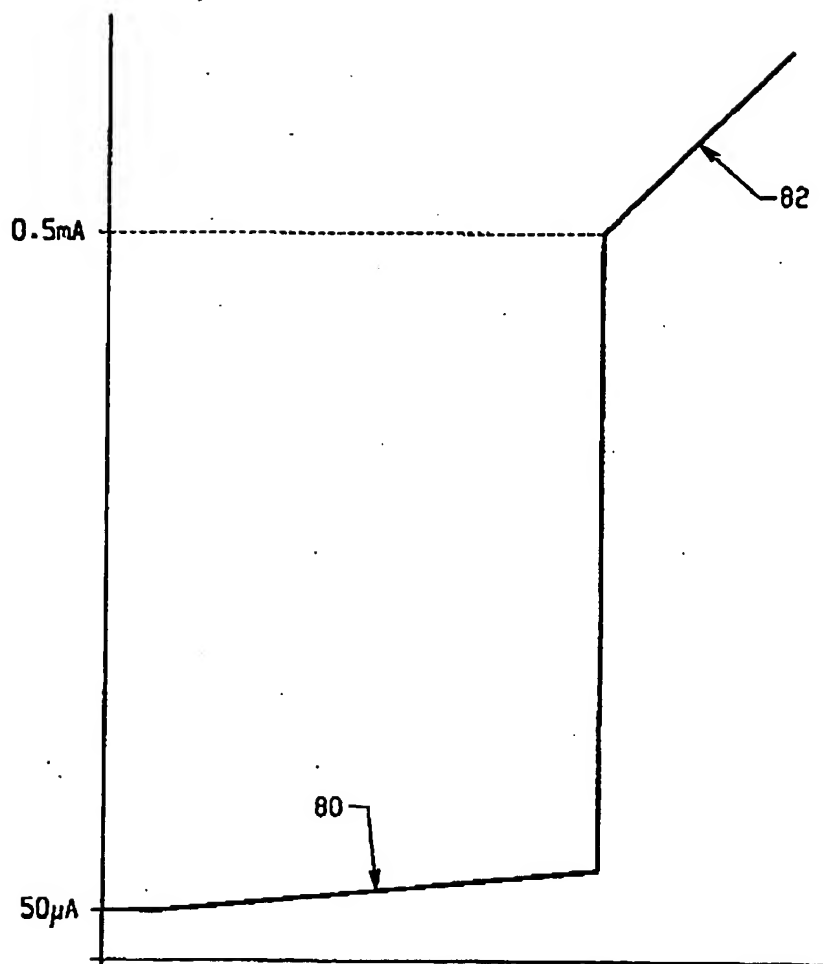


Fig. 5